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EATING ATTITUDES AND SELF-CONCEPT

by

Patricia Lynne Hames

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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IN

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To my Dad

Abstract

The reported incidence of anorexia nervosa and bulemia has increased in the last decade. While once considered rare it is now considered a disease: a predominately middle class female disease. It has been reported that some 10% of those who develop anorexia nervosa end up starving themselves to death. Many anorexic victims reach such a serious state because they suffer silently. Unbeknownst to family and friends they slowly starve themselves. It is not until most anorexics look like skeletons that they become identified as having a "problem".

As the requirement of a loss of at least 25% of original body weight is included in the diagnostic criteria of anorexia, it is not surprising that some anorexics die. Less severe anorexics spend their lives in a chronic state, crippled by their never ending battle against weight gain.

To be fashionably slim, however, is a desired and socially encouraged behavior today. In a society where a mult-million dollar advertising industry focuses on attaining the "ideal body image", the strict dieting and exercise regimen of anorexic women is of no cause for alarm: until, of course, it is almost too late. It is unclear why some who begin the routine social ritual of dieting persist long after they have attained the cultural ideal of slimness. It would seem though, that the initial dieting behavior was encouraged, and often even initiated by family and friends who also promote the culturally defined "thin is in" ideal.

The present study utilized the EAT (Eating Attitudes Test) as a screening instrument for identifying actual or incipient cases of anorexia nervosa (not excluding bulimia or chronic dieting), among female university students, an identified high risk group. The (TSCS) Tennessee Self-Concept Scale and the Mooney Problem Check List - College Form were administered as a means of evaluating self-concept, psychological health, personality characteristics, and lifestyle of the subjects and as a means of validating scores on the Eating Attitudes Test. The study was survey exploratory in nature. Subjects were selected from a total of approximately 1436 students living in two "on campus" residences at the University of Alberta, Edmonton, Alberta. A packet containing a four-part questionnaire was distributed to various female university students living in an "on campus" residence. One hundred packets were distributed and 41 of the 47

returned were usable. The data analysis was based on 41 returns (41%).

The data analysis included Pearson Product Moment Correlations of total Eating Attitudes scores to individual subscales on the Tennessee Self-Concept Scale, and to individual subscales on the Mooney Problem Checklist, on the total sample. To determine whether high and low scorers on the Eating Attitudes Test differed on their performance on the Tennessee Self-Concept Scale and the Mooney Problem Check List, two sample Hotelling T^2 tests were used to compare the mean differences on the Tennessee Self-Concept Scale and the mean differences on the Mooney Problem Checklist of the two groups.

The results of the study did not indicate any significant relationship between eating attitudes (EAT) and external self-concept (TSCS), and between eating attitudes and sub-scale scores on the Mooney Problem Check List. Analysis of the mean scores of the two groups (high and low scorers on the EAT) on the Tennessee Self-Concept and the Mooney Problem Check List also proved to be insignificant. A negative relationship was found between eating attitudes (EAT) and internal self-concept (TSCS).

Future research should aim at further investigating the effects of social / cultural / media pressures which encourage the "thin is in" ideal. Research should also aim at developing educational, screening, intervention and treatment programs for students who constitute a high risk population.

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I. INTRODUCTION TO THE STUDY

A. Background to the Problem

In the last 20 years there has been an increased tendency in the mass media to focus on dieting and physical fitness. Televsion, radio, magazines, and billboards all suggest we shape up, participate; yet, they also tell us "we deserve a break today." While McDonald's sells a billion more hamburgers and makes a billion more dollars, the diet industry flourishes like never before. Neuman and Halvorson (1983) report that diet centres, slimnastic classes, and weight reduction support groups are flourishing with an estimated 20 million Americans seriously dieting at any given moment, while spending more than 10 billion dollars in the process. The major focus of this multi-million dollar advertising campaign is directed towards attaining the "ideal body image" - the message is "thin is in." Consequently, we receive two opposing messages: eat, drink, and be merry, and be thin.

For many this conflicting message creates turmoil. It has been suggested, that the North American preoccupation with slimness is one factor contributing to the initiating and maintenance of anorexic behavior (Bemis, 1978; Boskind-White & White, 1978; Bruch, 1978; Garner & Garfinkel, 1982; Halvorson & Neuman, 1983; Palazzoli, 1978). Particularly vulnerable to these eating disorders (anorexia & bulimia) are adolescent and young adult females who comprise 90-95% of identified cases (Garner & Garfinkel, 1982). Further, although once considered extremely rare, the reported incidence of anorexia nervosa has been increasing dramatically over the last 20 years (Bemis, 1978). Dowling (1981) and Halvorson and Neuman (1983) report that each year one out of every hundred teen-age girls plunges into an emaciating anorexic regimen. Similarly, Hornak (1983) and Kubistant (1982) report that 5% to 25% of all women between 18 and 35 years of age are so obsessed with their weight that they starve themselves, binge eat, and vomit the food intake, only to start the whole cycle over again (Hornak, 1983, p. 461). The occurrence of dieting behavior in high school and university students is overwhelming. Huenemann, Shapiro, Hampton, and Mitchell (1966) reported that between 63-70% of high school girls were dissatisfied with their bodies and wanted to lose weight; Dwyer, Feldman, Seltser and Mayer (1969) found over 80% of female high school seniors wanted to weigh less;

Jakobovits, Halstead, Kelley, Roe, and Young (1977) reported that 11% of college women were on a diet and a further 75% were consciously trying to limit their food intake (in Garner & Garfinkel, 1982).

The popularity and epidemic occurrence of anorexia nervosa, bulimia, and chronic dieting behavior on college and university campuses is widely acknowledged. Many authors believe that the prevalence of dieting and concern about weight among university students is dangerously high, necessitating identifying university students as a high risk group vulnernable to developing eating disorders (Boskind-White & White, 1983; Garner & Garfinkel, 1982; Hornak, 1983; Kubistant, 1982; Loganbill & Koch, 1983). It seems, the paradoxical messages female students receive from family, friends, and society contribute to the added pressures of being a student;

> "...My father wants to know how the grades are. My mother asks, each time she calls, if I have put on weight. If I say yes, she tells me I won't be able to attract a man. Deep down inside I don't want to turn my back on my parents because I believe being skinny, an A student, and attracting a man with a desirable career will satisfy their demands as well as my own." (Boskind-White & White, 1983, p.104).

Thus, the increased incidence of eating disorders emerges and the resultant identification as a high risk group in university students is recognized.

B. Purpose of the Study

Currently included in the diagnostic criteria for anorexia nervosa is the requirement of a loss of at least 25% of original body weight, while diagnostic criteria for bulimia includes inconspicuous eating during a binge. Consequently, an anorexic may not be diagnosed until she looks like a skeleton and is close to death, whereas the secret behavior of bulimics may never be discovered. Moreover, in a society which promotes the culturally defined "thin is in" ideal, chronic dieting behavior (herewith described as anorexic behavior) is often not acknowledged as cause for alarm.

In this study the (EAT) Eating Attitudes Test was used as a screening instrument for identifying actual or incipient cases of anorexia nervosa; (not excluding bulimia), specifically anorexic behavior, among university female students, an identified high risk group. Further, the (TSCS) Tennessee Self-Concept Scale and the Mooney Problem Check

List-College Form were administered as a means of evaluating self-concept, psychological health, personality characteristics, and lifestyle of the subjects, and as a means of validating scores on the EAT.

It was proposed that those scoring high on the EAT (30 and above of a 120 maximum score) could be identified as high risk individuals, already anorexic / bulemic or prone to anorexic behavior. The authors of the EAT state "...it is a valid objective and economical instrument for evaluating the symptomatology in anorexia nervosa." (Garner & Garfinkel, 1979, p.277). Therefore, it is believed that those scoring high on the EAT will also exhibit symptomatic behavior as measured by the various scales of the TSCS and the Mooney Problem Check List.

The study is survey exploratory in nature, and focuses on information acquired through a four-part questionnaire. The questionnaire was delivered to 100 female university students living in an "on campus" residence.

C. Justification for the Study

A means of identifying anorexics or high risk individuals before they reach an unstable life threatening state is desperately needed. The importance of early identification of those at risk can not be understated. It is hoped that the use and results of the EAT will provide valuable information and serve to validate further use as a means of identifying high risk individuals within a known vulnerable population. Moreover, it is felt that gaining information about personality characteristics, self-concept, and feelings of control is a critical part of this process of understanding and identifyng high risk individuals in a university population.

D. Organization of the Thesis

The purpose of the study was briefly introduced in this chapter. In Chapter II the author presents a review of the relevant literature, while in Chapter III the methodology and design is explained. The findings and results based on research data are presented in Chapter IV. In Chapter V research findings, conclusions, and implications for further research are discussed.

II. Related Literature

A. The Body Through the Ages

> It is certainly not true that there is in the mind of man any universal standard of beauty with respect to the human body. It is, however, possible that certain tastes may in the course of time become inherited ... If all our women were to become as beautiful as the venus of medici, we should for a time be charmed; but we should soon wish for variety; and as soon as we had obtained variety, we should wish to see certain characteristics a little exaggerated beyond existing inheritance. (Darwin, in Vincent 1979, p. 11)

Throughout the years, food and body size have continually been linked as a measure of economic status and psychological strength: for wealth was health and poverty emaciation. Simply stated, attitudes towards body size (whether fat or thin) depend upon the availability and nutritional quality of food at that time. Vincent (1979) observed, "that only when food is abundant can we indulge in gluttony and satiation or, even more important, afford the luxury of dieting and self-imposed starvation" (p. 14). Bruch (1982), Halmi (1982), Garner and Garfinkel (1982), and Palazzoli (1978) also make reference to the fact that eating disorders (anorexia, bulimia, and chronic dieting) only occur in countries (the western world) where food is plentiful.

The luxury of dieting granted to the western world in the 20th century is a product of the fashion of the times. However, body size as a fashion has changed throughout the ages. According to Garner and Garfinkel (1982) obese women at one time symbolized fertility and strength and, where food was abundant, their body size illustrated the size of their wealth. "To those without wealth and abundant food overeating and obesity were viewed with admiration" (Garner & Garfinkel, 1982, p.106). Similarly, Woodman (1980) states that "Fatness once carried happy connotations. People laughed and grew fat; the fortunate few lived off the fat of the land; the less fortunate many envied the fat cat" (p.7).

We are reminded by Gubner (1974) (in Wooley & Wooley, 1980) that obesity is a 20th century word. Negative characteristics were not associated with extreme body weight in earlier times. In less affluent cultures, the plump bride is still worth her weight in

gold. In China and Japan, it is reported by Woodman (1980) that a fat belly is respected and admired with the individual considered to be well grounded in himself.

In some cultures obesity is considered a desirable secondary sexual characteristic. Certain cultures in Africa have rituals where brides-to-be go through preparations of excessive fattening. The fattening ritual consists of sending the brides-to-be into "...special houses for fattening, where they are secluded for periods ranging from several weeks to years (depending on their wealth) ..."(Vincent, 1979, p.12).

The Paleolithic period sculpture of Venus of Willendorf portrays an obese woman with enormous breasts, protruding belly, and monolithic thighs which exemplifies the taste for epic dowdiness that persisted in the Neolithic period, prehistoric Greece, Babylonia, and in Egyptian sculptures (Vincent, 1979). However, the preferred and accepted obese form soon became passe as it is reported by Vincent (1979) that ancient Greeks envied their predecessors, the Cretans. It seems, the Cretans were supposed to have known a drug that allowed them to eat all they wanted, yet remain thin. Spartans and Athenians were also reported to be sticklers about fat, and Roman ladies apparently suffered to keep thin as reeds. Montaigne wrote (during the time) (in Vincent, 1979) "...women would swallow sand in order to ruin their stomachs and acquire a pale complexion" (p.14).

In the middle ages, goodness came to be equated with thinness. Neuman and Halvorson (1983) describe how fasting became associated with virtue and purity:

> The prevailing view was that angels were so good, so pure, that they must be awfully thin. People sat around and discussed how thin these angels really were, and debated over how many angels could dance on the head of a pin" (p.4).

In the 19th century illnesses were romanticized. Tuberculosis was glamorized as the pale and sickly look was associated with the romantic personalities of the art and literature set. Garner and Garfinkel (1982) also described how women drank lemon juice and vinegar to destroy their appetites and to maintain a pale appearance. Likewise, Dubos and Dubos (1952) report how paleness, not glowing health, was the fashionable attribute of women, as men cultivated a passion for "delicate languishing companions, threatened with impending death" (p.57). Further, according to Dumas, (in Dubos & Dubos, 1952) in 1823 and 1824 it was the fashion to suffer from the lungs; be consumptive; spit blood after each sensational emotion and die before reaching the age of thirty. In essence,

weakness and refinement became synonymous.

There have been times in history when cultural attitudes towards physical appearance have played a role in facilitating serious illness (Garner & Garfinkel, 1982). Examples are provided by Polhemus and Proctor, (1978) (in Garner & Garfinkel, 1982) where they cite tatooing, scarification, cranial or other bone deformation, decorative tooth filling and foot binding as socially prescribed alterations of appearance.

One of the most popular and well-known physical devices used for body alteration as described by Garner and Garfinkel (1982) and Rudofsky (1972) is the corset. The original corset was made of whole bone and steel, and was used to produce the sought after hour-glass figure. Besides causing discomfort while pinching the flesh and displacing internal organs there was always the danger of the rays splitting and puncturing the body. Corsets also decreased the volume of food ingested and served at the same time as a strong psychological inducement to further restrict intake. However, even when the harm of corsets was acknowledged an unlaced woman was regarded as licentious, "a veritable vessel of sin" (Rudofsky, 1972, p.16). It is reported that liberation from the corset, for American women, only occurred when the War Industries Board revealed that unbinding them would release twenty-eight thousand tons of steel, enough to build two World War I battleships (Rudofsky, 1972).

Succumbing to acceptable "in" fashions for women has resulted not only in changing clothes but in altering body size as well. Chernin (1981), Garner and Garfinkel (1982), and Vincent (1979) refer to trends in descriptions of acceptable body image of women in the 20th century. In the early part of the century buxom women were fashionable. Flat-chested, lean and angular flapper's of the 20's, replaced the buxom look only to return to the rotound, busty "hourglass" figure in the 50's. Orbach (1978), describes the trends of the 60's and 70's:

> "the only way to feel acceptable was to be skinny and flat chested with long straight hair. The first of these was achieved by near starvation, the second, by binding one's breasts with an ace bandage and the third, by ironing one's hair." ...in the early 1970's, the look was curly hair and full breasts. Just as styles in clothes change seasonally, so women's bodies are expected to change to fit these fashions. Long and skinny one year, petite and demure the next, women are continually manipulated

by images of proper womanhood, which are extremely powerful because they are presented as the only reality. (p.8)

Despite past fluctuations of women's body weight for fashion the most recent trend has seen women's body size decreasing. When studying playboy centrefolds and Miss America Pageant winners between 1959 and 1978 Garner and Garfinkel (1982) found that there had been an evolution in the preferred shape for women over the past 20 years. The shift has been toward a thinner size; as bust size has decreased, waist size has increased moving toward a more tubular androgynous look. However, while magazine centerfolds and Pageant participants have been getting thinner, actuarial statistics show that the average woman of a similar age has been getting heavier. Garner and Garfinkel's (1982) findings demonstrate the tension between biological forces determining weight and the cultural ideal.

B. Social / Cultural Pressures - "Thin is In"

Just as the last century had a "look," there is now a look which has come to be associated with positive qualities. The "thin is in" appearance has once again evolved as the ideal, and attaining it has become associated with success and self-control (Garner & Garfinkel, 1982). Boskind-White and White (1983) also support the idea that we have come to believe that all life's problems will be solved by dropping pounds.

The media has capitalized on the "thin is in" ideal to the point where even women who have grown up with a reasonably healthy respect for their bodies become preoccupied with body image. Orback (1982) feels women are so assaulted with articles, advertisements, diet columns and advice on beauty matters that pedal thinness as a life solution that they find their confidence undermined" (p.28). Thus, a body form that was acceptable ten years ago, is now considered outsized as our obsession with slimness pushes women into a struggle to reduce their bodies into smaller and smaller sizes.

According to Orbach (1982) and Vincent (1979) no one is exempt from the culture and media pressures as fashion models, housewives, athletes, and blue collar workers are victimized to some extent by a culture obsessed with thinness, youth, and beauty. Further, Orbach (1982) believes women are additionally victimized by a contradiction which says their bodies are one of the few culturally accepted ways they can express

themselves. With the pressure to look a certain way, to conform to today's slim image personal expression through the body is undermined.

Nevertheless, Orbach (1978) feels that as women attempt to make themselves into the image presented in billboards, newspapers, magazines, and television they are also reminded by the media of their responsibility to provide economic, nutritious, time-saving, natural, healthy, sexy, and elegant meals for others. "Food is what she gives to others but must deprive herself of. Food is, if you like, good for others but somehow dangerous to the woman herself ..." (Orbach, 1982, p.25). Woodman (1980) concluded that in our culture food has become a catalyst for almost any emotion " - a positive way of expressing love, joy, acceptance; or negatively, a way of expressing guilt, bribery, fear of rejection. "Food and the quality of food are at the center of every festival. To share the food is to be a part of the festival; to reject it is to be left out of life" (Woodman, 1980, p.22).

Orbach (1978) postulates that since women are taught to see themselves from the outside as candidates for men, they become prey to the huge fashion and diet industries who, "...first set up the ideal images and then exhort women to meet them" (p.8). Contrary to Orbach (1978) however, Boskind-White and White (1983) feel that in spite of the current "new feminism" the present model of extreme slimness is being imposed on women by women; meaning, women, not men, prefer Twiggies. Boskind-White and White (1983) conclude that both boys and girls seem to disparage fat in childhood (fatty fatty two-by-four ...); yet, beginning with adolescence, females overwhelmingly become more influenced than males. Consequently, according to Boskind-White and White (1983) men are conditioned to feel that it is not masculine to care so much about their looks while women are conditioned "to care too much" (p.118).

The fact that compulsive eating is overwhelmingly a woman's problem, and that the prevalence of obesity among women is 70% higher than among men has led Haremustin (1983) and Orbach (1978) to suggest that compulsive eating has something to do with the experience of being female in our society. The feminist perpsective supported by Orbach (1978) and others argues that being fat represents an attempt to break free of society's sex stereotypes. Nevertheless, the most popular form of women's groups concentrate on teaching women to be assertive or to be thin (Hare-Mustin, 1983).

Among the rash of media events covering the "new epidemic" (eating disorders) there has also been an increase in feminist articles (Boskind-Lodahl & Sirlin, 1977; Boskind-White & White, 1983; Ciseaux, 1980). Sours (1980) suggests that feminists increase the interest in anorexia nervosa by pointing to the disorder as an example of what happens to young women when they are fearful of male rejection and facing feminity and wifehood. Similarly, Hornak (1983) points out that the sensational pictures and dramatic case studies presented in the media seem to have a consciousness raising effect; "...perhaps an enticement for young women" (p.461). Many of the articles provide a warning against the dangers of self-starvation and gorging-purging but, there often remains an affirmation of our cultural attitude that "thin is beautiful" and subtle messages that, for every woman, a touch of anorexia is advised (Sours, 1980).

Rampling (1978) feels young women are conditioned to regard slimness as desirable. "For them, at least, initial acceptance of an 'anorexic solution' is assured" (p.297). The young women today, we are told by Boskind-White and White (1983), are the daughters of the first generation of women who attended weight watchers. They have been raised by women who weigh their small portions of food, use sucrayl, eat cottage cheese, and weigh themselves twice daily.

It is not surprising then, that Dwyer, Feldman, and Mayer (1967) report that adolescent girls (as others) currently favor the ectomorphic body type, and frequently refer to insurance company's ideal weight charts and norms to determine what their own body weight should be. However, "weights listed in them (charts) are not necessarily realistic ones to aim for, since they are unrealistically light for certain body builds and the criteria which are to be used in determining build are not specified" (Dwyer, Feldman, & Mayer, 1967, p.1055).

With this insidious linkage between attractiveness, success and dieting, it is not surprising that even young women without severe interpersonal problems become preoccupied with weight in adolescence and engage in competitive and contagious dieting regimes with other young women (Boskind-White & White, 1983; Orbach, 1982). Due to the cultural obsession with slimness many women have been unnecessarily drawn into having an eating or food related problem.

C. Anorexia Nervosa

"Although myths and mysteries still surround its origins, the syndrome known as anorexia nervosa has been familiar to medical science for several centuries" (Thoma, 1967, p.4). According to Dally (1969) and supported by others (Garner & Garfinkel, 1982; Neuman & Halvorson, 1983; Rizzuto, Peterson & Reed, 1981; and Sours, 1980), the first detailed descriptions of anorexia nervosa are generally considered to have been published by Richard Morton in 1694. It was Morton who painted a vivid picture of the course and tragic outcome of a severe but typical anorexia nervosa

> I do not remember that I ever in all my practice see one, that was conversant with Living, so much wasted with the greatest degree of a consumption (like a skeleton only clad with skin) ..., but being quickly tired with medicines, she beg'd that the whole affair might be committed again to Nature, whereupon consuming everyday more and more, she was after three months taken with a fainting fit and dyed. (Thoma, 1967, p.5)

William Gull and Lasegue are credited with contributing to the current recognition and understanding of the psychological basis of anorexia nervosa. Dally (1969) reports that in 1868 Gull described "a peculiar form of disease: occurring mostly in young women and characterized by refusal to eat and extreme emaciation" (p.1). Gull originally called the disease apepsia hysterica, but renamed it anorexia nervosa six years later.

Unbeknown to Gull, in 1874 Lasegue also published a full account of anorexia nervosa. He named it anorexia hysterique. Dally (1969) concluded that there seemed to be little doubt that Gull and Lasegue developed their concepts about this condition independently of one another. Lasegue apparently was optimistic about the outcome and claimed that all his patients recovered. Gull was less sanguine and reported that at least one of his patients died as a result of the disease (Dally, 1969).

After the descriptions of Gull and Lasegue anorexia nervosa became widely recognized and the literature over the next few decades contained many accounts of these patients, some of them fatal, as well as astute observations on the possible etiology (Dally, 1969). Some authors (Garner & Garfinkel 1982; Neuman & Halverson, 1983; Rizzuto,et.al,1981; and Sours, 1980) make reference to the evolution of anorexia nervosa as follows. After Gull and Lasegue, Janet differentiated two types of anorexia nervosa,

obsessional and hysterical. Gilles de La Tourette attempted to separate primary anorexia from secondary anorexia. Dejeune and Gauckler separated eating disorders which resulted from depressive or psychotic states from anorexic mentale. Simmonds created confusion with his description of an emaciated woman who died and was found to have post partum destruction of her pituitary gland. Until this time no one had doubted that Gull and Lasegue were correct in attributing the fundamental cause of anorexia nervosa to psychological factors. Consequently, from 1914 until the mid-1930's cases of anorexia were commonly mistaken and treated as Simmonds' disease, more often than not with fatal results (Dally, 1969).

More recently many have written extensively about patients with anorexia nervosa (Bruch, 1962, 1966; Crisp, Palmer, Kalucy, 1976; Darby, Garfinkel, Garner, Cosana, 1983; Stunkard, Stellar 1984; Vigersky 1977). "While this literature has undoubtedly contributed a great deal towards understanding the psychopathology of anorexia nervosa, it has also inadvertently blurred the diagnostic boundaries and increased the confusion which surrounds anorexia nervosa at the present time" (Dally, 1969, p.3). This confusion has increased the necessity for diagnostic critieria and prompted Feighner, Robins, Guze, Woodruff, Winokur & Munoz (1972) to design the following critieria for the diagnosis of anorexia nervosa.

A. Age of onset prior to 25

B. Anorexia with accompanying weight loss of at least 25% of original body weight.

C. A distorted, implacable attitude towards eating, food, or weight that overrides hunger, admonitions, reassurance and threats, eg.:

   1. Denial of illness with a failure to recognize nutritional needs
   2. Apparent enjoyment in losing weight with overt manifestations that food refusal is a pleasurable indulgence
   3. A desired body image of extreme thinness with overt evidence that it is rewarding to the patient to achieve and maintain this state
   4. Unusual hoarding or handling of food

D. No known medical illness that could account for the anorexia and weight loss.

E. No other known psychiatric disorder, with particular reference to primary affective disorders, schizophrenia, obsessive-compulsive and phobic neurosis. (The

assumption is made that even though it may appear phobic or obsessional, food refusal alone is not sufficient to qualify for obsessive-compulsive or phobic disease.)

F. At least two of the following manifestations:

1. amenorrhea
2. lanugo
3. bradycardia (persistent resting pulse of 60 or less)
4. periods of overactivity
5. episodes of bulimia
6. vomiting (may be self-induced) (in Bemis, 1978, p.594)

Similarly, the (DSM-III) Diagnostic and Statistical Manual of Mental Disorders (3rd ed.)(1980) provides the following diagnostic criteria for anorexia nervosa:

A. Intense fear of becoming obese, which does not diminish as weight loss progresses.

B. Disturbance of body image eg., claiming to "feel fat" even when emaciated.

C. Weight loss of at least 25% of original body weight or, if under 18 years of age, weight loss from original body weight plus projected weight gain expected from growth charts may be combined to make the 25%.

D. Refusal to maintain body weight over a minimal normal weight for age and height.

E. No known physical illness that would account for the weight loss.(p.69)

As can be seen from the above criteria the symptomatology of anorexia nervosa is, in the truest sense of the word, psychosomatic (Thoma, 1967). This has made it essential to describe both the physical and the mental side of the syndrome. Moreover, there is broad agreement that "anorexia nervosa is a distinct illness with an outstanding feature: relentless pursuit of excessive thinness," a deliberate wish to slim (Bruch, 1978, p.ix).

Numerous other factors have been identified as contributing to the psychosomatic nature of anorexia nervosa. Bruch has identified three major characteristics of a true anorexic with the first outstanding symptom being a disturbance of delusional proportions in the body image and body concept. She states, "of pathognomic significance of anorexia nervosa is the absence of concern, the vigor and stubborness with which the often gruesome emaciation is defended as normal and right, as not too thin, and as the

only possible thing against the dreaded fate of fat" (Bruch, 1965, p.78). Furthermore, Branch and Eurman (1980) suggest that the anorectic patient meets with more approval than disapproval from family and friends as they initially tend to admire the patient's appearance.

The second outstanding characteristic of anorexics as seen by Bruch is a disturbance in the accuracy of perception or cognitive interpretation of stimuli arising in the body, whereby the most prominent deficiency is the failure to interpret enteroceptive signals indicating nutritional need. "Awareness of hunger and appetite in the ordinary sense seems to be absent. A patient's sullen statement: 'I do not need to eat,' is probably an accurate expression of what she experiences most of the time" (Bruch, 1965, p.78). Bruch (1973) further suggests that "hunger is not innate knowlege"; learning is necessary for its organization into recognizable patterns.

Bruch sees the third outstanding feature of an anorexic as a paralyzing sense of ineffectiveness, which pervades all thinking and activities of anorexic patients. She says, "while the first two features are readily recognized, the third defect is camouflaged by the enormous negativism and stubborn defiance of these patients" (Bruch, 1965, p.80). Chernin (1981), when discussing her own struggle with anorexia nervosa also referred to feelings of ineffectiveness, "many of life's emotions from loneliness to rage, ... can be felt as appetite ... standing in front of the refrigerator, I realized that my hunger was for larger things, for identity, for creativity, for power, for a meaningful place in society" (in Neuman & Halvorson, 1983, p.54). From a feminist perspective, Boskind-Lodahl White (1977) feels that women have learned a passive and accomodating approach to life from their parents and their cultures. She sees this accomodation combining two opposing tensions: one, the desperate desire for self-validation from a man, and in contrast, an inordinate fear of men and their power to reject.

Throughout the literature there is agreement that anorexics feel under the influence and direction of external forces: "they act as if their body and behavior were the product of other people's influences and actions" (Bruch, 1973, p.55). In view of this vulnerability to external controls and poor self-concept, it is not surprising that Garner and Garfinkel (1983) and others attribute the recent increase in anorexia nervosa to cultural messages and pressures. According to Garner (1983) there are five cultural factors which clearly

encourage anorexic behavior in our society. These factors are:

A. Pressure to be thinner - "thin is in"

B. Glorification of Youth

C. Changing roles for women - role strained conflict

superwoman ideal

competitiveness between women to be thin

D. Emphasis on fitness - "participaction"

E. Media coverage of anorexia nervosa

magazines

movies

novels "The Best Little Girl in the World"

Karen Carpenter

Pat Boone's daughter (D.M. Garner, personal communication, May, 1983)

Distorted body image is an almost universal finding in anorexia, with many patients insisting that they are overweight when their bodies have become grotesquely emaciated (Bemis (1978). Wingate and Christie (1978) report that recent investigations have determined that anorexics significantly overestimate their physical dimensions on a variety of measures. Slade and Russell (1973) further report that body image distortions do decrease as patients put on weight, and that this is particularly so when patients gain weight at a slow rather than fast rate.

A wealth of clinical material implicates disturbed family relationships and parental overcontrol in the development of anorexia nervosa. Bemis (1978) suggests that anorexic behavior is first manifested in response to new situations for which existing skills seem inadequate; for example, entering college, marriage, or puberty itself.

In the family situation the anorexic girl is described as being repressed, too compliant, too desirous to fulfill parental expectations, outstandingly good and quiet, obedient, clean, eager to please, helpful at home, precociously dependable, and excelling in school work. "They were the pride and joy of their parents and great things were expected of them, eg. making up for the parents' frustrations in their own careers, or compensating for a disappointing or troublesome sibling" (Bruch, 1965, p.80). Whatever the reason, the anorexic girl gives up her own self-identity to satisfy the needs of her

parents. Lowen (1967) believes, "the loss of feeling of identity has its roots in the family situation" (p.5). According to many theorists, this is the case with anorexics.

Deprived of the freedom to live their own childhood anorexic children eventually rebel and tend to become stubborn and arrogant. Entering into a desperate struggle for control of their lives they often feel inadequate and ineffective and seek to establish a competent, independent identity. "Subconsciously, the body comes to represent life, and the anorectic seeks absolute and reassuring control of it" (Rothenberg, 1976, p.49). The need for self-reliant independence, which confronts every adolescent, seems to cause insoluble conflict after a childhood of robot-like existence. Hence, entering adolescence anorexics find themselves unprepared. "...they lack any true knowledge of themselves and are quite incapable of coping with the shattering and quite unexpected advent of puberty" (Palazzoli, 1978, p.40). Anorexics feel obliged to do something that demands a great degree of independence in order to be respected and recognized. According to Dowling (1981) when anorexics get stuck, the only independence they feel they have is to control their bodies.

Bemis (1978) suggests that, although in some cases refusal to eat is apparently antedated by "normal" dieting, which may be prompted by casual comments (by parents) that the patient is "filling out" or "getting plump" it continues when the anorexic sees that control over her body is all she has. It is her power and identity. In retrospect many patients describe this struggle for self identity :

> "When early in adolescence he began to rebel against the conviction of being their property and against the felt obligation of making them proud, he did it by focusing on his body as the only personal reserve for his sense of self-hood and identity" (Bruch, 1965,p.82).

In another case, there was an overall feeling of having to burn up energy to get rid of everything that came from 'them' (Bruch, 1965).

As might be expected the parents of these children do not see that they have created the problem or even that there is a problem at all. Palazzoli (1978) describes this:

> According to the parents the illness 'came out of the blue,' - until that moment the child was a normal happy being 'who never gave them the least trouble,' 'who was a joy to have around,' 'a sensible girl who never worried us,' 'one who always ate up

her food,' 'a girl we called a mop because she always cleaned up her plate,' 'an affectionate little girl easy to bring up,' 'a happy child full of fun' (p.48).

The mothers of anorexics are commonly depicted as dominant and intrusive, and the "peculiar relationship" and "striking ambivalence" between mother and child are frequently mentioned. In contrast to the unflattering prominence of the "scolding and overbearing mother," fathers are briefly characterizied as passive and ineffectual figures (Bemis, 1978). There is further agreement in the literature that anorexic girls are the model children of a domineering, intolerant and hysterical woman, who prevents them from standing their own ground and who stunts their emotional development. These daughters grow up in the "shadow of the maternal super-ego" (Palazzoli, 1978, p.39).

Bruch (1965) states that since patients who refuse to eat come to psychiatric attention only after a considerable lapse of time, distrustful, negativistic and manipulative behavior is observed in all families. Minuchin (1978) proposes that the family "organizes" around the symptom (anorexia) and focuses so much on this that it avoids other interpersonal conflicts. Similarly, Richardson (1980) believes the child's symptoms serve to stabilize a precarious or dysfunctional family. The symptom becomes imbedded in the family organization camouflaging unrest or problems in the family. Minuchin (1978) hints at this when describing the anorectic family "...the hidden spouse conflict, the utilization of children to detour conflict, the coalition of mother and children against father, the overconcern with food..." (p.63). Manifest here is the fact that anorexia nervosa is a complicated illness, preceded by numerous behaviors both on the part of the individual (anorexic) and the involved family. It is more than excessive dieting in a teenage girl and must be treated as such.

Perspectives and treatments

The psychoanalytic interpretation of anorexia nervosa reviewed by Bemis (1978), Carino and Chimelko (1983), Rizzuto et.al. (1981),and Wilson and Mintz (1982) suggests that adolescents who are unable to meet the demands of mature genitality may regress to a primitive level at which oral gratification is associated with sexual pleasure and fertility. The physical and psychological symptoms of anorexia nervosa are explained as products of oral ambivalence, with the refusal of nourishment representing a defense against oral

impregnation fantasies. Bulimia is conceptualized as a breakthrough of unconscious desires for gratification and amenorrhea both as a symbol of pregnancy and a denial of feminity. However, "whatever the merits of the traditional conceptual model, psychoanalytic therapy has proven singularly ineffectual in altering anorexic behavior" (Bemis, 1978, p.600).

Behavioral treatment described by Bianco (1972), Garner, Garfinkel, and Bemis (1982), and Stunkard (1972) is a prototype of effective operant therapy. In keeping with the orientation of behaviorism, investigators have written very little about the etiology or dynamics of the disorder, focusing instead on the design of treatment procedures. This school suggests "the impairment of food intake in anorexia nervosa can be viewed as a specific learned behavior, perpetuated by environmental reinforcements" (Bemis, 1978, p.602). Social learning theory suggests that refusal to eat may be employed as a powerful manipulative tool for the control of family interactions. Behavioral treatment programs focus attention exclusively on the development of effective intervention techniques. These techniques may include: systematic desensitization, relaxation techniques, operant techniques, hierarchy of rewards, room restriction and the use of sustagen formula to prevent patients from eating selectively. Bruch (1978) has been the most outspoken critic of the behavioral method, documenting a number of cases in which "successful" operant therapy was followed by physical and emotional deterioration that sometimes included suicidal behavior. "Working within an etiological model that considers the disorder a desperate struggle for self-determination, it is not surprising that Bruch deems behavior modification a form of 'brutal coercion,' which is 'totally unsuited to the personality and character patterns of patients with anorexia nervosa' " (Bemis, 1978, p.606).

Ego psychology focuses on the disorder as being symptomatic of the mother-child relationship. Some authors postulate that early maternal deprivation causes permanent defects in the ego structure of anorexic individuals, leaving them ill-prepared to cope with the demands of adulthood (Wingate & Christie, 1978). A powerful ambivalence toward the mother is said to result in a regressive pull toward childhood and an angry rejection both of food as a maternal substitute and of the feminine role. Suggested therapy is to provide a warm and nurturant relationship to help patients deal with their 'vast anaclitic needs.' It

should be a fact-finding, non-interpretive approach, directed toward the correction of defective self-perception and disturbed interpersonal relationships (Bemis, 1978)

Family interaction model suggests that pathological needs within the family are instrumental in maintaining anorexia nervosa. Minuchin (1978) observes that the families of children who suffer from a number of psychosomatic disorders, including anorexia nervosa, share general patterns of interaction, such as enmeshment or over involvement, over-protectiveness, rigidity, and poor conflict resolution. He also maintains that disordered eating behavior should be viewed as interpersonal rather than an individual problem and that successful treatment must be directed toward a restructuring of the dysfunctional family system as a whole.

Kaffman (1981) sees the anorexic's obsessional behavior as a trance state, and believes that it is this autohypnotic situation which creates the enormous resistance to co-operate in any therapeutic plan to end the self-inflicted starvation. He emphasizes the value of persuasive monoideistic repetition (hypnosis) by the therapist of his own healthier messages in order to break through the monoideistic maladjustive preoccupation of the client. To further interrupt and weaken the "pattern" Kaffman advises a "moratorium" on all significant others in the hope that they will no longer add fuel to the fire with their repetitive monoideistic response. This reduction of external reinforcement to the anorexic is but one measure of a comprehensive treatment program which strives to stop the operation of the monoideistic chain. In addition, "...redirecting language and communication together with a search for alternative ways of transaction, behavior and content of life does bring in a great percentage of cases a striking change in the monoideistic condition" (Kaffman, 1981, p.242). The key point of Kaffman's treatment program is the recognition that ultimately the therapist must work to overcome the self-perpetuating, perservering thoughts of the patient before any movement can be achieved.

In viewing the treatment of anorexia nervosa Garner and Garfinkel (1982) propose a multidimensional approach which selectively integrates existing approaches (Bruch, Crisp, Minuchin, Russell, Palazzoli) with those they have found most useful in the management of patients with anorexia nervosa. According to Garner and Garfinkel (1982) many of the behaviors anorexics exhibit are directly related to the biological effects of

starvation. They report that starvation affects self-concept and sense of self-control, impairs concentration and creates indecisiveness, obsessionality, mood lability and sleep disturbance. They state, "starving people may also tend to feel more hungry after they've eaten which will exacerbate the anorexic's fears of loss of control concerning food" (Garner & Garfinkel, 1982, p.206). Reduction of interests and marked social isolation are also characteristic of starving individuals' and frequently characterize anorexic behavior.

In treating the various facets of anorexia nervosa and dealing with the effects of starvation, Garner and Garfinkel (1982) outline the following general rules to apply to treatment regimes.

1. The effects of starvation must be reversed if the patient is to benefit meaningfully from psychotherapy.
2. The patient must always be dealt with openly and honestly, and with particular attention to her disordered self-esteem, even though much of her overt behavior may appear to be stubbornly defiant or mistrusting.
3. Psychotherapies must be directed at the specific predisposing and perpetuating factors operating in any individual to prevent recurrences and to minimize sequelae.
4. A relationship type of psychotherapy with a slowly evolving sense of trust is a useful context for facilitating the above.(p.216)

D. Bulemia

As previously stated, the anorexic learns to win attention (and power) and admiration through losing weight. The latter she does by engaging in strict dieting and extreme activity. Bruch (1965) reports that sometimes there has been an intensified interest in athletics and sports: in others, the activities appear to be aimless, eg., walking by the mile, chinning and bending exercises, refusing to sit down, or literally running around in circles. Patients who continue in school will spend long hours on their homework, intent on having perfect grades. Although done excessively these activities are still relatively "normal." What distinguishes the anorexics' behavior as "abnormal" is the desperate attempts to remove unwanted food from the body. In their battle against

retaining fat in the body many resort to the use of laxatives, enemas or self-induced vomiting. Accompanying these behaviors, Bemis (1978) describes other unusual eating habits including monotonous or eccentric diets, hoarding or hiding food, and obsessive preoccupation with food and cooking. The presence of vomiting, laxative use, and binge eating as behaviors exhibited by an anorexic places her in a different diagnostic category - specifically, the category of bulemic. Synonyms for bulemia include compulsive or binge eating, bulimia nervosa, bulimarexia, the gorge-purge or binge-purge syndrome, and the dietary chaos syndrome (Johnson & Sinnott, 1981).

The diagnostic criteria for bulemia as outlined in the (DSM-III) Diagnostic and Statistical Manual of Mental Disorders (3rd.ed.) (1980) are as follows:

A. Recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time, usually less than two hours).

B. At least three of the following:

   1. consumption of high-caloric, easily ingested food during a binge
   2. inconspicuous eating during a binge
   3. termination of such eating episodes by abdominal pain, sleep, social interruption, or self-induced vomiting
   4. repeated attempts to lose weight by severely restrictive diets, self-induced vomiting, or use of cathartics or diuretics
   5. frequent weight fluctuations greater than ten pounds due to alternating binges and fasts

C. Awareness that the eating pattern is abnormal and fear of not being able to stop eating voluntarily

D. Depressed mood and self-deprecating thoughts following eating binges

E. The bulimic episodes are not due to Anorexia Nervosa or any known physical disorder (p.71)

Bulemia is less well-known than anorexia, but reportedly can overlap with anorexia nervosa. According to Johnson and Sinnott (1981) as many as 50 to 60 percent of anorectic patients have bulemic episodes. Many others, (Beaumont, George & Smart 1976; Pyle, Mitchell & Eckert, 1981; Wilson & Mintz 1982) consider bulimia to be a subcategory of anorexia nervosa or a variant in a spectrum of eating disorders.

In their study of 34 bulimic patients Pyle, Mitchell, and Eckert (1981) found their patients demonstrated characteristics often described in anorectic patients including preoccupation with food and an exaggerated fear of becoming obese. Furthermore, they found many of their patients appeared to be clinically depressed and had problems with impulse control ie. stealing behavior and chemical abuse. Garfinkel, Moldofsky, and Garner (1980) found the bulemic patients in their study (of 68 bulimics and 73 restricters) to have a history of weighing more and to be more commonly premorbidly obese. In comparison to the restricting patients, the bulimic patients were those who vomited and misused laxatives. The bulimic group also displayed a variety of impulsive behaviors, including use of alcohol and street drugs, stealing, suicide attempts, and self-mutilation.

Stober (1981) concluded that in comparison to the abstaining anorexics, the bulemics evidenced higher levels of core anorectic symptomatology and were more likely to show affective disturbance and alcohol use. In addition, the bulemics had demonstrated greater instability and behavioral deviance in childhood. In contrast to anorexics there was more conflict in the family and less cohesion and structure in the family unit. The parents were known to have histories of marital discord and a higher incidence of psychiatric problems (in Wilson & Mintz, 1982).

Most bulemic patients oscillate between periods of complete abstinence and overindulgence. They may starve themselves during the day and gorge in the evening or go for several days without food followed by a binging episode. Patients have been known to consume extreme amounts of high calorie food in a short period of time followed by massive amounts of laxatives (500 to 600 tablets, as often as 3 times per week) (Garner, Garfinkel & Bemis ; 1982). Garner, Garfinkel, and Bemis (1982) point out how laxative misuse and vomiting reinforce bulemic behavior because the patient is able to overeat and not suffer the caloric consequences. Wilson and Mintz (1982) report that some patients gorge and vomit for years with minimal anxiety until they attempt to stop and find they cannot. Many bulemics, according to Cauwels (1983), accumulate associated problems such as medical and dental complications, social isolation, financial and legal difficulties, and deterioration of relationships with family and friends.

As with treatment of anorexics Garner, Garfinkel, and Bemis (1982) stress the importance of acknowledging the severe effects of starvation for, "...the therapist is

dealing with a personality ravaged by physical complications" (p.37). Moreover, as patients may have chosen to assume a shape based on the fashion models portrayed in the media Garner, Garfinkel, and Bemis (1982) believe it is beneficial to explore the patient's dependence on cultural ideals for feminine body shapes.

The previously mentioned evidence strongly supports that the North American preoccupation with slimness has contributed to the initiation and maintenance of anorexic behavior. Women succumb to the social / cultural messages that encourage them to conform to the cultural standards of beauty. Bemis (1978) suggests that the cultural premium on slimness may also provide intermittent reinforcement for weight reduction. However, while cultural and other factors may account for the unique pressures placed on women which encourage anorexia, it has also been suggested that women may be biologically susceptible since they have been shown to be far more likely than males to experience appetite fluctuations in response to stress (Neumann & Halvorson, 1983). Nevertheless, few will dispute the preponderance of eating disordered in our culture today.

E. University Students as a High Risk Group

Results of a survey of 355 college students conducted by Halmi, Falk, and Schwartz (1981) indicate that within a normal college population, 13% experienced all of the major symptoms of bulimia as outlined in the Diagnostic and Statistical Manual of Mental Disorders (3rd ed.). According to Halmi, Falk, and Schwartz (1981), "these results indicate that binge eating may be a much more serious public health problem than was previously thought" (p.703). Many others (Garner & Garfifnkel 1982, Loganbill & Koch 1983; and Stangler & Printz 1980) also noted the increase of eating disorders among college-age women.

Moss, Jennings, McFarland, and Carter (1984) relate how bulimia nervosa is now widespread on college campuses and no longer considered rare. Although, they suggest the increase in acknowledged cases is due to the decline of secretiveness surrounding the illness, they also suggest this increase may be due to societal expectations, and the emphasis on thinness in women.

Garner and Garfinkel (1982) maintain that many individuals are predisposed to anorexia nervosa by virtue of certain characteristics - for example, "adolescent girls of upper social class in Western society, under strong pressures to be successful, and with certain personal and familial characteristics..." (p. 190). Boskind-White and White (1983) as others cite white middle-class adolescents and women in their twenties with a strong orientation toward academic achievement and a traditional lifestyle, including marriage, as most vulnerable.

Like many illnesses, there are certain predisposing factors which will place some individuals more at risk than others. Further, it is the interaction and timing of these predisposing factors which are responsible for initiating the resulting illness. Garner and Garfinkel (1982) have identified, and suggest, the following factors as predisposing to anorexia nervosa.

A. Individual
    1. Autonomy identity and separation concerns
        - ego deficits
        - maturation fears
        - early puberty
        - age and sex distribution
        - twinning
    2. Perceptual disturbances
    3. Weight disturbance
    4. Personality development
    5. Cognitive processes
    6. Perinatal trauma
    7. Other illnesses
       eg. Turner's syndrome
    8. Unknown variables

B. Family
    1. Demographic characteristics
        1) parental age
        2) social class

2. magnification of the culture
    1) weight, eating, fitness
    2) performance expectations
3. Parental history of affective illness and possibly alcoholism
4. Family history of anorexia nervosa (in siblings)
5. Maternal obesity (for bulimic group)
6. Possible genetic component (see Mx vs Dz twin concordance)
7. Specific parent-child interactions (leading to difficulties in autonomy and separation)

C. Culture
1. Pressures for thinness
2. Performance expectations (p.193)

However, not all individuals who exhibit some of the aforementioned characteristics will develop anorexia or bulimia, just as those without predisposing factors will eg. males, lower class individuals, and those over the age of 25 years. Nevertheless, from the forementioned characteristics and predisposing factors it becomes evident why university and college students are considered a high-risk population.

Veasey (1977) feels eating problems play a crucial part in the work and social difficulties of many female students. Students are not immune to the conflict of wishing to stay slim and desiring fattening foods. In addition, the life-style of some students makes them particularly prone to abuse food. Johnson and Sinnott (1981) describe how stories of eating binges (or "blind munchies") and self-induced vomiting circulate through college sororities and dormitories. Veasey (1977) further describes how, "those students, for example, who have relatively few external constraints on their time and who have not developed appropriate self-discipline in organizing their studying, may drift into a pattern of avoiding work, feeling guilty, and then seeking solace in food or alcohol" (p.27). Thus, those women who may have survived their adolescent years without disordered responses to food seem especially vulnerable during their early years at college.

According to Wechsler, Rohman, and Solomon (1981) late adolescence is a time when learning adult roles, experimenting with new behavior, developing a sense of identity and making plans for future careers provides adjustment problems for many. They

state,"researchers have documented the relationship between life change, stress and physical and emotional well being as well as the general vulnerability of college students to emotional problems, academic anxiety, eating disorders, and interpersonal difficulties"(Wechsler, et.al., 1981, p.719). In addition, they point out that such factors as rapid social change, technological advances, economic recession, and a reduction of job opportunities have had a negative impact on students mental health. Similarly, Lucas (in Wechsler, et.al., 1981) maintains that "...college students in recent years have been under increased pressure from the very factors that are known to contribute to poor emotional and physical health in the general population: worry, anxiety, depression, life change, and low socioeconomic status" (p.719). The results of the study of Wechsler et.al. (1981) were consistent with those of Veasey, and showed that females reported a significantly higher incidence of problems and concerns than males, with weight control being a major concern.

Duddle (1973) reports in her study of a university population, an increase of reported anorexic cases (from 0 to 13) between 1966 and 1971. She suggests the increase may be due to the recent popularity of the illness which has resulted in increased reporting and diagnosis. Duddle also postulates that the increased incidence is a result of the emancipation of women and the rise of the number of professional women who are mothers.

Stangler and Printz (1980) maintain, that as university populations become increasingly heterogeneous with respect to age, sex, ethnicity, and socioeconomic status, so "the range of psychiatric diagnoses available for study extends toward an approximation of the general population" (p.940). High on the list of diagnoses are the eating disorders which are said to run rampant on university and college campuses. Perhaps, as Woodman (1982) suggests:

> We are all addicted to the "thin is in" ideal ... many of us - men and women - are addicted in one way or another because our patriarchal culture emphasizes specialization and perfection. Driven to do our best at school, on the job, in our relationships - in every corner of our lives - we try to make ourselves into works of art. Working so hard to create our own perfection we forget that we are human beings. (p.10)

III. DESIGN AND METHODOLOGY

Data Gathering Procedure

Subjects were selected from a total of approximately 1436 students living in two "on campus" residences at the University of Alberta, Edmonton, Alberta. As the writer was interested solely in the eating attitudes and self-concept of female university students, only females were solicited. To increase the variance of the sample subjects were chosen from two different "on campus" residences.

Lister Hall Residence complex consists of three hi-rise towers, housing 1300 students by floor groupings (male, female, co-ed, mixed), social interests (regular, low), and age (all ages, under 21, and 21 and over). Pembina Hall is a historic residence built in 1914 and located on the center of campus. It is a four storey walk-up which houses 136 students 21 years of age and over, by floor groupings (first floor male, second, third, and fourth floors co-ed).

Sixty packets containing a four-part questionnaire were placed in the mailboxes of varying female students living in the different towers and floor groupings of Lister Hall. Forty were hand delivered and selectively distributed to females living in Pembina Hall. Subjects were told the researcher was studying the life-style and personality characteristics of students living in residence (Appendix A). They were asked to complete the four questionnaires and return them in the envelope provided through on-campus mail. No further contact was made with the subjects.

Of the 100 packets distributed 47 were returned to the researcher. However, of the 47 returned, 4 were unanswered and 2 had been completed by males. Thus, the final analysis was based on 41 returns (41%). Travers (1969) reported that when subjects are not contacted a second or third time, a return rate of 40% is rare. Similarly, Warwick & Lininger (1975) have suggested that a 40 to 50 percent return on mailed questionnaires is considered a good return in contrast to 75% on telephone surveys (in Lehman & Mehrens, 1979).

In the sample the mean age was 22.5 years (range from 18 to 54) and the mean length of time in residence was 10.9 months (range from 3 to 32 months).

The Instruments

The survey consisted of four tests:

A. Demographic Questionnaire

B. Eating Attitudes Test

C. Tennessee Self-Concept Scale

D. Mooney Problem Check List

which are discussed in detail hereafter.

Demographic Questionnaire

The demographic questionnaire was constructed to gather information regarding the women's ages, length of time in residence, faculty, grade point average in high school and university, parents' education and occupation, family size and place of birth, height and weight, and year of program at university (Appendix B). The information gained from the demographic questionnaire was used to compare the subjects' profiles to those of diagnosed anorexics as identified in the literature.

A summary of the demographic data appears in Table 1,2 & 3.

Eating Attitudes Test

The Eating Attitudes Test (EAT) (Appendix C) was designed by Garner and Garfinkel in 1979 as a 40-item measure of the symptoms of anorexia nervosa. The test is presented in a 6-point, forced choice, self-report format where each extreme response in the 'anorexic' direction is scored as worth 3 points, while the adjacent alternatives are weighted as 2 points and 1 point respectively. It is reported by the authors to be easily administered and scored (Garner & Garfinkel, 1979).

Validation of the EAT, as reported by the authors, was performed with two independent groups of female anorexia nervosa (AN) patients and normal control subjects (NC). The AN subjects met the criteria for primary AN according to Feighner et al. (1972) while the NC group was comprised of university students from the same socioeconomic strata as the AN patients. The NC subjects were within 10% of average Canadian weight for their age and height (Garner & Garfinkel, 1979).

Table 1

Demographic Statistics of Subjects
Age, Weight, Height, and Family Size

Variable	mean	S.D.	min.	max.
age	22.48	5.90	18.00	54.00
height (inches)	64.30	2.60	60.00	70.00
weight (pounds)	127.80	20.76	100.00	198.00
family size (parents & children)	4.00	1.90	2.00	11.00

Table 2

Demographic Statistics of Subjects

Residence, Year, and Overall Average in High School and most recent year in University

Variable	mean	S.D.	min.	max.
length of stay in residence (in months)	10.9	6.3	3	32
year in univ.	2.3	1.2	1	6
overall average in last year of high school (%)	76.07	8.1	56.00	91.00
overall average in most recent year of univ. (%)	74.36	9.1	56.00	94.00

Table 3

Demographic Statistics of Subjects

Faculty, Parents' Education, Parents' Occupation

Variable	Category	#
faculty	education	14
	arts	10
	science	6
	nursing	3
	rehab	2
	home-ec	2
	dental hygiene	1
	business	1
	Fac. St. Jean	1
	Grad. Studies	1
father's highest level of education		
	Gr 8	4
	partial hs Gr 10	6
	High School Gr 12	16
	college/univ	7
	partial univ	1
	graduate prof.	4
	vocational	1
	no ans. no ed.	2
father's occupation		
	professional	11
	skilled tradesman	9
	retired	4
	farmer	4
	business	4
	deceased	3
	self-employed	3
	no ans.	2
	unemployed	1

(table continues)

Variable	Category	#
mother's highest level of education		
	Gr 8	4
	Gr 10	6
	Gr 12	11
	partial univ	1
	college/univ	12
	grad prof.	3
	vocational	2
	no ed no ans	2
	retired/homemaker	10
mother's occupation		
	business	7
	professional	6
	sales	5
	self employed	4
	farmer	4
	medical	3
	nil-unemloyed	2

The initial version of the EAT was administered to a criterion group of 32 AN patients and 34 NC subjects. Individual items were viewed as meaningful if the AN group scored significantly higher than the NC group. The authors recorded an overall validity coefficient of .72 by correlating the total EAT score with group membership. On revision, this correlation increased to .87 suggesting the EAT is a good predictor of group membership (Garner & Garfinkel, 1979).

Some overlap between the AN and NC groups was found by Garner and Garfinkel with 13% of the NC group scoring above 30 (minimum cut off score). However, only 7% of the NC results fell above the lowest AN score. A cut-off score of 30 was utilized to eliminate 'false negatives' and allow a 'false positive' rate, or identification of normal subjects with eating concerns comparable to those in the AN group (Garner & Garfinkel, 1979).

The alpha reliability coefficient as reported by Garner and Garfinkel (1979) for the sample of AN subjects was .79, and for the pooled sample of AN and NC was .94. The authors state that, "considering the relatively small number of items on the EAT, the test demonstrates a high degree of internal reliability" (Garner & Garfinkel, 1979, p.276).

Correlations between the EAT and the Restraint Scale, adult weight fluctuations, and extraversion and neuroticism on the Eyseneck Personality Inventory are reported to be low at .28, .17, .30, and .10 respectively. According to Garner and Garfinkel (1979) the above correlations suggest that scores on the EAT are not merely related to measures of dieting, weight fluctuations, extraversion or neuroticism (Garner & Garfinkel, 1979). In spite of this, it is felt that the EAT is valuable as a screening instrument for use with a high risk group. Of particular importance to this study is its use in identifying those at risk in a university population such as the 13% found in Garner and Garfinkel's validation study.

Tennessee Self-Concept Scale

The Tennessee Self-Concept Scale (TSCS) (Appendix D) devised by Fitts in 1965 is a self administering scale consisting of 100 self-description items. The available responses range from "completely false" to "completely true." Of the 100 items, 90 assess self-concept and 10 assess self-criticism.

In the area of self-concept Fitts (1965) identifies the following five categories as being measured: physical self, moral-ethical self, personal self, family self, and social self. Fitts also identifies these five categories as measuring a person's external frame of reference. Internal frame of reference is measured according to Fitts by further subdividing the above five categories into: self-identity ("what I am" items), self satisfaction ("how I feel about myself" items), and behavior ("what I do" items). In addition, the TSCS provides total scores for: total positive score, reflecting overall level of self-esteem; variability scores, reflecting the amount of consistency from one area of self perception to another; and distribution score, a measure of extremity response style (Bentler, in Buros, 1972). A self-criticism score is provided in the form of a total score with extremely high scores indicating a lack of defenses in an individual and low scores indicating defensiveness.

On a test-retest procedure with 60 college students over a two-week period Fitts reported reliability of the total positive or self-esteem score to be .92. Test-retest reliability of the various subscores range from .70 to .90 (Fitts, 1965). Likewise, Bentler (1972) reported that although varying for different scores, retest reliability was in the high .80's (in Buros, 1972).

In his review of the TSCS in Buros (1972) Bentler stated a -.70 correlation of the total positive score with the Taylor anxiety Scale had been found, as well as correlations of .50 to .70 with the Cornell Medical Index and an unpublished Inventory of Feelings. Furthermore, correlations with various MMPI scales are frequently in the .50's and .60's (in Buros, 1972).

Evidence for the discriminant and predictive validity of the instrument has been provided by Fitts (1965) in his manual, as well as a number of correlations with unpublished self-concept inventories.

Suinn (1972) has stated that the "norms are over-represented in number of college students, white subjects, and persons in the 12 to 30 year age bracket" (in Buros, 1972, p.368). However, in view of the sample in the present study this does not appear to be a drawback. Moreover, the TSCS ranks among the better measures combining group discrimination with self-concept information, and its empirical scales are useful as a means of screening clients for pathology.

Mooney Problem Check List

The Mooney Problem Check List (college form) (Appendix E) was devised by Mooney in 1940 and revised in 1950. The checklist is presented not as a test, but as a "census count of each student's problems - limited by his awareness of his problems and his willingness to reveal them" (Mooney, 1950, p.3).

The scale is printed on a six-page folder that provides for ease of marking by the student and ease of scoring by the counselor or researcher. There are 330 items with 30 in each of the following 11 areas: health and physical development (HPD); finances, living conditions, and employment (FLE); social and recreational activities (SRA); social-psychological relations (SPR); personal psychological relations (PPR); courtship, sex and marriage (CSM); home and family (HF); morals and religion (MR); adjustment to college (school) work (ASW); the future: vocational and educational (FVE); curriculum and teaching procedure (CTP).

The items are presented in short phrases intended to make it easy for students to express their troublesome problems such as; "being overweight," "managing my finances poorly," and "being timid or shy." Students are directed to first underline any statement which may be a concern for them. Secondly, students are asked to circle the number in front of the underlined statements which are of greatest concern to them. A formal score is not provided, but researchers may count underlined and circled items as a means of identifying problem areas.

As no formal scores are calculated, few psychometric statistics are available for the Mooney. Jones (1970) suggests that "since the list is not designed to produce 'scores' and no normative or correlational data are supplied, it cannot be assessed with regard to the usual concepts of reliability and validity" (in Buros, 1970, p.545). Mooney (1950) refers to an unpublished study by Gordon where a test-retest correlation of same items marked was found to be .93.

Mooney (1950) describes a variety of uses for the checklist including facilitating counseling interview, conducting group surveys and group guidance sessions, increasing teacher understanding and conducting research on problems of youth and adults. Consequently, due to the extensive and variable use of the scale an index of validity would be meaningless (Mooney, 1950). Bedell (1972), Krugman (1972), and Lentz (1972) (in

Buros 1975) & Mooney (1950) all stress the value of the Mooney scale as a research and screening instrument.

Research Questions

This study was descriptive survey,and exploratory in nature and was designed to explore the following questions.

1. What is the relationship between eating attitudes (EAT) and subscale scores of the Tennessee Self-Concept Scale (TSCS)?
2. What is the relationship between eating attitudes (EAT) and subscale scores of the Mooney Problem Check List?
3. Is there a significant difference between high and low scorers on the Eating Attitudes Test (EAT), and mean scores on the Tennessee Self-Concept Scale (TSCS)?
4. Is there a significant difference between high and low scorers on the Eating Attitudes Test (EAT), and mean scores on the Mooney Problem Check List?

Hypotheses

The following hypotheses were formulated from the above research questions.

1. There will be no significant correlation between Eating Attitudes scores (EAT) and external self concept scores of the Tennessee Self-Concept Scale (TSCS) (physical self, moral ethical self, personal self, family self, and social self).
2. There will be no significant correlation between Eating Attitudes scores (EAT) and internal self concept scores of the Tennessee Self-Concept Scale (TSCS) (identity, self-satisfaction, behavior).
3. There will be no significant correlation between Eating Attitudes scores (EAT) and individual sub-scale scores on the Mooney Problem Checklist.
4. There will be no significant difference between the means of the two groups (high and low scores on the EAT) on the Tennessee Self-Concept Scale.
5. There will be no significant difference between the means of the two groups (high and low scorers on the EAT) on the Mooney Problem Check List.

Delimitations of the Study

This study was survey exploratory in nature and focused upon a group of female university students living in an "on-campus' residence at the University of Alberta, Edmonton, Alberta. The subjects were chosen randomly and were surveyed by the use of a mailed questionnaire. No personal contact was made with the subjects and no follow-up was made. The findings are based on a 41% return rate. Thus, any attempt to generalize the findings to all female university students or the residence population in general should be done with caution.

Limitations of the Sample

The major limitation of this study is synonymous with the central difficulty in all direct-mail surveys. Specifically, the limitation of this study concerns the small percentage of returns. However, the return rate of 41% on this study supported by Travers (1969) and Warwick and Lininger (1975) (in Lehman & Mehrens, 1979) represents an acceptable level of returns for survey-mailed questionnaires. Secondly, the nature of the issue being studied (anorexic behavior) characteristically involves secrecy and denial of the problem. Thus, many students may have been reluctant to complete the survey, or answer questions accurately.

Evaluation of Data

Correlations of total Eating Attitudes scores to individual subscales on the Tennessee Self-Concept Scale, and to individual subscales on the Mooney Problem Checklist were done using the Pearson Product moment correlation, on the total sample. To determine whether high and low scorers on the Eating Attitudes Test differed on their performance on the Tennessee Self-Concept Scale and the Mooney Problem Checklist, two sample Hotelling T^2 tests were used to compare the mean differences on the Tennessee Self-Concept Scale and the mean differences on the Mooney Problem Checklist of the two groups.

Tables were used to illustrate demographic information.

An elaboration and explanation of the data analysis is presented in Chapter IV.

IV. FINDINGS AND RESULTS

The findings are reported in the following manner: the hypotheses have been restated, followed by the pertinent statistics and tables, and the appropriate conclusions. According to Ferguson (1981) and Spatz and Johnston (1976) the null hypothesis is used to assume no difference between two groups. The null hypothesis is also appropriately used in survey research. Thus, in the present study the null hypothesis was used to assume no difference between high risk and low risk individuals as identified by the Eating Attitudes Test.

Hypothesis 1

There will be no significant correlation between Eating Attitudes scores and external self concept scores of the Tennessee Self-Concept Scale (physical self, moral-ethical self, personal self, family self, social self).

Pearson Product moment correlations were calculated between the total Eating Attitudes scores and the total scores for each of the five external self concept measures of the Tennessee Self-Concept Scale (Table 4).

The obtained value for the correlations between the Eating Attitudes scores and personal self and family self were significant at the .05 level. These were negative correlations of -.30 and -.38 respectively. The remaining three external self concept measures physical self and moral-ethical self were not significant at the .05 level.

Conclusion

A significant negative relationship was found between two of the five sub-scale measures of external self-concept and eating attitudes.

Hypothesis 2

There will be no significant correlation between Eating Attitudes scores and internal self concept scores of the Tennessee Self-Concept Scale (identity, self-satisfaction, behavior).

Table 4

Pearson Product Moment Correlations

Eating Attitudes Test with Tennessee Self-Concept Scale

(external self-concept measures)

	EAT	p=
physical self	-.25	.058
moral-ethical self	-.11	.245
personal self	-.30	.029*
family self	-.38	.007*
social self	-.23	.078

*significant

Pearson Product moment correlations were calculated between the total Eating Attitudes scores and the total scores for each of the three internal self-concept measures of the Tennessee Self-Concept Scale (Table 5).

The obtained values of -.29, -.28, and -.28 for identity, self-satisfaction and behavior respectively were significant at the .05 level.

Conclusion

In this study, a significant negative correlation was found between eating attitudes (EAT) and internal self-concept as measured by the Tennessee Self-Concept Scale.

Hypothesis 3

There will be no significant correlation between Eating Attitudes scores and (individual) sub-scale scores on the Mooney Problem Checklist.

Pearson Product moment correlations were calculated between the total Eating Attitudes scores and the eleven sub-scale scores of the Mooney Problem Check List (Table 6).

Two of the 11 sub-scales had significant correlations at the .05 level. These were: Eating Attitudes with the variable health and physical development (HPD)(p=.34) and Eating Attitudes with the variable courtship, sex and marriage (CSM)(p=.26). This indicates that eating attitudes and concern with health and physical development, and courtship, sex and marriage have a positive relationship. Obtained values for correlations on the remaining nine subscales were not significant at the .05 level.

Conclusion

In this survey a significant relationship was found between Eating Attitudes scores and two of the eleven subscale scores on the Mooney Problem Checklist.

Table 5

Pearson Product Moment Correlations

Eating Attitudes Test with Tennessee Self-Concept Scale

(internal self-concept measures)

	EAT	p=
identity	-.29	.032*
self-satisfaction	-.28	.039*
behavior	-.28	.036*

*significant

Table 6

Pearson Product Moment Correlations

Eating Attitudes Test with Mooney Problem Check List

	EAT	p=
health and physical development (HPD)	.34	.015*
finances, living conditions, and employment (FLE)	.09	.298
social and recreational acativities (SRA)	-.09	.286
social-psychological relations (SPR)	-.03	.435
personal psychological relations (PPR)	.07	.330
courtship, sex, and marriage (CSM)	.26	.050*
home and family (HE)	-.17	.144
morals and religion (MR)	.08	.311
adjustment to college (school) work (ACW)	-.08	.320

(table continues)

	EAT	p=
the future: vocational and educational (FVE)	-.07	.328
curriculum and teaching procedure (CTP)	-.06	.349

*significant

Hypothesis 4

There will be no significant difference between the means of the two groups (high and low scores on the EAT) across all subscales on the Tennessee Self-Concept Scale.

A hotelling T^2 analysis was performed to test for significant differences between the two groups on the Tennessee Self Concept Scale. The analysis showed that the overall Hotelling T^2 statistic for the two groups was 21.567 ($F=1.458$; $df1=11$, $df2=29$)($p > .05$) (Table 7).

Conclusion

Overall, no difference was found between the groups. There was a ten point or greater difference on two of the variables. However, no significant differences were found.

Hypothesis 5

There will be no significant difference between the means of the two groups (high and low scorers on the EAT) on the Mooney Problem Check List.

A hotelling T^2 analysis was performed to test for significant differences between the two groups across the subscales on the Mooney Problem Check List. Table 8 illustrates the results, and shows that the overall Hotelling T^2 statistic for the two groups was 12.159 ($F=0.8219$; $df1=11$, $df2=29$) ($p > .05$).

Conclusion

When tested simultaneously there were no significant differences in the overall comparisons of the two groups. Individual comparisons were not made as there were no overall significant differences.

Table 7

Two-Sample Hotelling T^2 Comparison of External Self-concept Variables

Variable Set	Group 1 mean	Group 2 mean	T^2	Fratio[1]	Probability
Physical Self	63.80	67.00	0.538	0.036	1.000
moral-ethical self	70.80	71.39	0.033	0.002	1.000
personal self	64.80	69.89	1.833	0.124	1.000
family self	66.40	73.00	2.852	0.193	0.997
social self	65.00	70.20	1.727	0.117	1.000
T^2 statistic			21.567	1.458	0.201

Two-Sample Hotelling T^2 Comparison of Internal Self Concept Variables

Variable Set	Group 1 mean	Group 2 mean	T^2	Fratio[1]	Probability
Identity	123.00	124.75	0.156	0.011	1.000
Self Satisfaction	102.40	112.33	1.614	0.109	1.000
Behavior	105.40	114.39	2.939	0.199	0.996
T^2 statistic			21.567	1.458	0.201

1 df1=11 df2=29

Table 8

Two-Sample Hotelling T^2 Comparison of Mooney Variables

Variable Set	Group 1 mean	Group 2 mean	T^2	Fratio[1]	Probability
HPD	6.00	4.17	2.275	0.154	0.999
FLE	5.40	4.22	0.636	0.043	1.000
SRA	2.40	3.97	0.833	0.056	1.000
SPR	3.60	3.86	0.018	0.001	1.000
PPR	3.20	3.31	0.005	0.000	1.000
CSM	4.00	2.67	1.127	0.076	1.000
HF	1.60	2.22	0.469	0.032	1.000
MR	3.40	2.42	0.531	0.036	1.000
ACW	3.20	5.08	1.070	0.072	1.000
FVE	1.40	2.53	1.413	0.095	1.000
CTP	1.60	2.14	0.244	0.017	1.000
T^2 statistic			12.159	0.822	0.620

1 df1=11 df2=29

Summary

In this study, four of the five null hypotheses were accepted implying the following: no correlation between eating attitudes (EAT) and external self-concept (TSCS), no correlation between eating attitudes (EAT) and sub-scale scores on the Mooney Problem Check List; no difference between the means of the two groups (high and low scorers on the EAT) on the Tennessee Self-Concept Scale and the Mooney Problem Check List.

Null hypothesis number two was rejected indicating there is a correlation between eating attitudes (EAT) and internal self-concept as measured by the Tennessee Self-Concept Scale. Some minor differences were noted, and although not significant are worthy of further discussion as implications for future research. The results of this research are further summarized in Chapter V as well as a discussion of useful implications for future research.

V. Discussion and Conclusion

A. Hypotheses

The data supported null hypthesis number one which stated there would be no significant correlation between Eating Attitudes test scores and external self-concept scores as measured by the Tennessee Self-Concept Scale. The results indicated there was a significant correlation between two of the five external self-concept scales (personal self and family self) and eating attitudes scores. These were negative correlations suggesting a high score on the eating attitudes test was related to a low score on the personal self and family self subscales of the Tennessee Self-Concept Scale. Further, it would seem that those exhibiting symptomatic anorexic behavior (ie. high risk / high scores on the EAT) felt that they had little personal strength or family support. This is consistent with the theory and clinical findings of Bruch, 1965; Minuchin, 1978; and others. Their work was not statistical in nature; thus, the present study did not utilize a directional hypothesis.

The data did not support null hypothesis number two which stated there would be no significant correlation between eating attitudes scores and internal self-concept scores of the Tennessee Self-Concept Scale. There was a significant negative correlation found between eating attitudes and internal self-concept scores (identity, self-satisfaction, and behavior) as measured by the Tennessee Self-Concept Scale. The results show there is a correlation between eating attitudes (symptomatic behavior) and confused identity, low self-satisfaction, and non-acceptance of personal behavior. Again, these results are consistent with the opinions outlined by others in Chapter II.

It was stated in null hypothesis number three that there would be no significant correlation between eating attitudes test scores and individual subscale scores on the Mooney Problem Check List. The results did not support null hypothesis number three; therefore, the null was rejected. Two of the eleven subscales, health and physical development, and courtship, sex and marriage, were found to have a significant positive relationship with eating attitudes. There was evidence in this study that those who exhibit anorexic behavior also exhibit concern with their health and physical development as well as concern or fear of courtship, sex, and marriage.

Null hypothesis number four was accepted with the data showing no overall difference between the means across all sub-scales of the two groups (high and low scorers on the eating attitudes test) on the Tennessee Self-Concept Scale. As reported in Chapter IV, on two of the variables there was a ten point or greater difference. These differences demonstrate a practical significance which may be a function of the limited sample size. Differences occurred with the variable self-satisfaction where group two (the low scorers on the eating attitudes test) had a mean score ten points higher than group one (high scorers on the eating attitudes test) which suggests that overall, those in group two are more self-satisfied. Secondly, a 12-point difference was evident between the means on the variable net-conflict with group one having the higher score. This difference may reflect a greater level of conflict or contradiction in group one's responses to positive items, and in their responses to negative items.

The data supported null hypothesis number five which stated there would be no significant difference between the means of the two groups (high and low scorers on the eating attitudes test) on the Mooney Problem Check List. These results suggest that overall, there was no significant difference between high risk individuals and low risk individuals as evidenced by the number of problems checked by each group on the Mooney Problem Check List.

B. Findings and Implications for Future Research

Five women in the present sample were found to have Eating Attitudes Scores of 30 or above which placed them in the high risk category and suggested they exhibited anorexic type behaviors. These five women represented 12.2% of the sample which was consistent with the 13% high risk individuals Garner and Garfinkel (1982) found in their control group of university students. Similarly, Halmi, Falk & Schwartz (1982) found that 13% of the college students in their study exhibited symptoms of bulimia. Moss, Jennings, McFarland & Carter (1984) found 11.9% of their female high school population in the high risk range (a score above 30) on the Eating Attitudes Test.

The present results reinforce the opinions that many have set forth: specifically, that university students constitute a high risk group vulnerable to eating disorders. Furthermore, the negative correlation between eating attitude scores and internal

self-concept scores suggested that students, as others, have fallen victim to the strong external pressures (media, etc.) to be thin. In addition, the high risk group of this study exhibited some similar characteristics to characteristics of known anorexics and bulemics which have been outlined in the literature. These characteristics were: confused family relations, concern with health and physical development, concern with courtship, sex, and marriage, low level of self-satisfaction and a high need to achieve as illustrated by the above average grades in school (ie. overall average in high school 73%, in most recent year of university 76.8%).

Bruch (1973) has studied a subgroup of chronic dieters she has called "thin-fat". These people presented a psychological orientation that was not clearly distinguishable from that of patients with anorexia nervosa except that they did not manifest the classical weight loss. Perhaps, as Garner and Garfinkel (1979) have suggested in their study, the 12% of subjects in this study exhibiting symptomatic anorexic behaviors may belong to Bruch's "thin-fat" sect. As the subjects in the present study did not display abnormally low weights, Bruch's "thin-fat" classification seems quite feasible. Nevertheless, the incidence of eating disorders, and the concern surrounding food, weight gain,[1] and body image on university and college campuses is not to be underestimated.

Further studies should be conducted in order to address questions that the present study did not. For example: How do those students living in residence differ from the general university population? How do male students compare to female students on eating attitudes and self-concept? Also, for future improvements of this study a follow-up procedure should be included to enable the researcher to gain additional information about the responders and nonresponders.

In view of the present findings of 12% at risk, and the suspected cases not acknowledged or revealed on campus, the need for support groups, education, and a warm, understanding atmosphere is evident. Further use of the Eating Attitudes Test is recommended as a means of screening individuals who are at risk. Perhaps, freshmen entering their first year of university are most vulnerable. Thus, a means of countering the strong cultural / social pressures is needed, as well as a means of building internal ego strength so the vulnerable will not so easily fall victim.

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[1] Four subjects other than the five high risk individuals indicated in their questionnaires that they would like to lose 10 pounds or more.

It is clear that university students are at risk to developing eating disorders. Yet, it is not clear how to control this new epidemic. The Eating Attitudes Test as a screening device may be a step towards developing an early intervention program. Cooperation, and a joining of the student services on campus (Student Health, Student Help, Student Counselling, and Residence Staff / Managers) to implement this program would most certainly be another step.

Summary

In summary, the results of this study did not indicate any significant relationship between eating attitudes (EAT) and external self-concept (TSCS), and between eating attitudes and sub-scale scores on the Mooney Problem Check List. Analysis of the mean scores of the two groups (high and low scorers on the EAT) on the Tennessee Self-Concept Scale and the Mooney Problem Check List also proved to be insignificant. A significant negative relationship was found between eating attitudes (EAT) and internal self-concept (TSCS) which supports the popular belief that the recent increase in cultural messages to be thin, do play a causal role in the increasing incidence of anorexia nervosa. The percentage of subjects in this university sample found to be at risk for developing eating disorders parallels that found in other studies, and illustrates the fruitfulness of the Eating Attitudes Test as a screening device.

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Appendices

Appendix A

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

FACULTY OF EDUCATION
THE UNIVERSITY OF ALBERTA

April 1, 1984

Dear Student:

I am a graduate student in the department of Educational Psychology (counselling) at the University of Alberta. For my master's thesis research I am conducting a survey of students living in on campus residences. The purpose of this study is to acquire a greater knowledge and understanding of the life style and personality characteristics of university students. This research is being supervised by Dr J. Paterson, Co-ordinator of Clinical Services, Faculty of Education, University of Alberta.

Your room was randomly selected from the many who live on campus. I realize this is a hectic time of the year, that you feel pressured and are busy with exams and assignments etc. I too have those same pressures and am desperate to have this questionnaire completed. You can look at it as a coffee break from your studies, and as a great favour to a grovelling graduate student.

Although some questions may appear to be very personal in nature, each has a specific purpose and you are guaranteed that the results will be treated with strict confidentiality and that you will remain anonymous. It is not necessary to put your name on the questionnaire.

In filling out the questionnaire, answer each question as it applies to you now. Please answer each item as quickly, but as accurately, as possible. It may be difficult to decide on a answer for some questions, however, please try to answer all. Please use the separate sheet provided for answering each individual questionnaire. It will take approximately 60 minutes of your time.

When you have completed the questionnaire please seal the envelope and place it in the on-campus mail. (There is one located in the lobby of your residence.) YOur promptness in returning the questionnaire is greatly appreciated. I would like to impress upon you the importance of your personal contribution and thankyou for your cooperation and anticipated response.

If you wish to receive a summary of the completed study it will be made available to you by sending me your request at the following address. If you have any questions you may contact me through the Educational Psychology general office, 6-102 Education North, University of Alberta campus.

Once again, I am desperate for your assistance and thankyou in advance for your help.

Patti Hames
Graduate Student

Dr. J. Paterson
Supervisor

6-102 EDUCATION NORTH EDMONTON ALBERTA CANADA • T6G 2G5 • TELEPHONE (403) 432-5245

Appendix B

I would like to know just a little about you so I can see how different types of people feel about the issues I have been examining. Please answer all the questions directly on this sheet.

1. What is your age? _____

2. How long have your lived in residence? _____

3. What year are you in? _____

4. What faculty are you in? _____

5. What was your GPA (grade point average) when you graduated from high school?

_____

6. What was your most recent GPA in university (last term)? _____

7. Where were you born? _____

8. Where did your immediate family live while you were growing up?

_____

9. Where does your immediate family live now? _____

10. Do you like school? _____

11. What is your height? _____

12. What is your weight? _____

13. What level of education did your father complete? _____

14. What is your father's present occupation? _____

15. What level of education did your mother complete? _____

16. What is your mother's present occupation? _____

17. How many other than you are in your family? _____

Appendix C

Please use answer sheet provided to record the response which best applies to you. Do not write on question sheet. All of the results will be strictly confidential. Most of the questions directly relate to food or eating, although other types of questions have been included. Please answer each question carefully. Thank you.

Always	Very often	Often	Sometimes	Rarely	Never	
( )	( )	( )	( )	( )	( )	1. Like eating with other people.
( )	( )	( )	( )	( )	( )	2. Prepare foods for others but do not eat what I cook.
( )	( )	( )	( )	( )	( )	3. Become anxious prior to eating.
( )	( )	( )	( )	( )	( )	4. Am terrified about being overweight.
( )	( )	( )	( )	( )	( )	5. Avoid eating when I am hungry.
( )	( )	( )	( )	( )	( )	6. Find myself preoccupied with food.
( )	( )	( )	( )	( )	( )	7. Have gone on eating binges where I feel that I may not be able to stop.
( )	( )	( )	( )	( )	( )	8. Cut my food into small pieces.
( )	( )	( )	( )	( )	( )	9. Aware of the calorie content of foods that I eat.
( )	( )	( )	( )	( )	( )	10. Particularly avoid foods with a high carbohydrate content (e.g. bread, potatoes, rice, etc.).
( )	( )	( )	( )	( )	( )	11. Feel bloated after meals.
( )	( )	( )	( )	( )	( )	12. Feel that others would prefer if I ate more.
( )	( )	( )	( )	( )	( )	13. Vomit after I have eaten.
( )	( )	( )	( )	( )	( )	14. Feel extremely guilty after eating.
( )	( )	( )	( )	( )	( )	15. Am preoccupied with a desire to be thinner.
( )	( )	( )	( )	( )	( )	16. Exercise strenuously to burn off calories.
( )	( )	( )	( )	( )	( )	17. Weigh myself several times a day.
( )	( )	( )	( )	( )	( )	18. Like my clothes to fit tightly.
( )	( )	( )	( )	( )	( )	19. Enjoy eating meat.
( )	( )	( )	( )	( )	( )	20. Wake up early in the morning.
( )	( )	( )	( )	( )	( )	21. Eat the same foods day after day.
( )	( )	( )	( )	( )	( )	22. Think about burning calories when I exercise.
( )	( )	( )	( )	( )	( )	23. Have regular menstrual periods.
( )	( )	( )	( )	( )	( )	24. Other people think that I am too thin.
( )	( )	( )	( )	( )	( )	25. Am preoccupied with the thought of having fat on my body.
( )	( )	( )	( )	( )	( )	26. Take longer than others to eat my meals.
( )	( )	( )	( )	( )	( )	27. Enjoy eating at restaurants.
( )	( )	( )	( )	( )	( )	28. Take laxatives.
( )	( )	( )	( )	( )	( )	29. Avoid foods with sugar in them.
( )	( )	( )	( )	( )	( )	30. Eat diet foods.
( )	( )	( )	( )	( )	( )	31. Feel that food controls my life.
( )	( )	( )	( )	( )	( )	32. Display self control around food.
( )	( )	( )	( )	( )	( )	33. Feel that others pressure me to eat.
( )	( )	( )	( )	( )	( )	34. Give too much time and thought to food.
( )	( )	( )	( )	( )	( )	35. Suffer from constipation.
( )	( )	( )	( )	( )	( )	36. Feel uncomfortable after eating sweets.
( )	( )	( )	( )	( )	( )	37. Engage in dieting behaviour.
( )	( )	( )	( )	( )	( )	38. Like my stomach to be empty.
( )	( )	( )	( )	( )	( )	39. Enjoy trying new rich foods.
( )	( )	( )	( )	( )	( )	40. Have the impulse to vomit after meals.

Due to copyright and publication restrictions pages 61 through 68 have been removed. Included on these pages were two psychological tests; the Tennessee Self-Concept Scale taken from Fitts (1965) and the Mooney Problem Check List - College Form taken from Mooney (1950). A review of these instruments is provide in chapter 111 and references are included in the reference list.